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REMARKS

In accordance with the foregoing, claims 2, 3, 6, 8, 12, 21, 25, 29, 31, 32, 37, 39, 43, 50, 54, 58, 60, 61, 66, 68, 72, 79, 83 and 87 have been amended. Claims 1-88 are pending and under consideration.

In item 1, the Examiner objects to an informality in claims 3, 32 and 61. The Examiner's suggestion has been adapted.

In item 3, claims 1, 4, 5, 15-20, 22-24, 28, 30, 35, 36, 44-49, 51-53, 57, 59, 64, 65, 73-78, 80-82, 86 and 88 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,046,981 to Ramamurthy et al. in view of U.S. Patent No. 5,991,268 to Awdeh et al.

With regard to claims 1, 30, 59 and 88, the Examiner admits that Ramamaurthy et al. does not disclose increasing or reducing the equivalent bandwidth of variable speed connections by a scaling factor to achieve an assigned bandwidth. Awdeh et al. is cited for this deficiency. The Examiner asserts that Awdeh et al. teaches that if a connection acquires more rate than its minimum cell rate (MCR), it is possible to achieve target link utilization by scaling every connection's actual rate by an under-load factor, where the under-load factor increases the assigned rate.

Awdeh et al. relates to available bit rate "ABR" connection. See, for example, column 1, lines 6-10. On the other hand, Ramamurthy et al. discloses constant bit rate (CBR) connections, variable bit rate (VBR) connection, available bit rate (ABR) connections and unspecified bit rate (UBR) connections. See column 1, lines 34-39, for example. Even if there were proper motivation (there is not) to combine the under-load factor of Awdeh et al. and the system disclosed in Ramamurthy et al., the under-load factor of Awdeh et al. would be used to modify the Ramamurthy et al. connection admission control method as it relates to <u>ABR</u> connections. The under-load factor would not be applied to the other classes of service.

Independent claims 1, 30, 59 and 88 relate to <u>variable</u> speed connections, not ABR connections.

Independent claims 15, 18, 44, 47, 73 and 76 relate to <u>constant</u> speed connections. Even if Ramamurthy et al. could be modified by Awdeh et al., the combination would not contain the constant speed connection features of these claims. Similarly, independent claims 22, 51 and 80 relate to <u>unspecified</u> connections. Ramamurthy et al., even if modified, would not suggest the claimed unspecified connection features.

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In addition to the above, it is questioned whether the teachings of Awdeh et al. could be used to modify Ramamurthy et al. Based on the excerpt cited by the Examiner, it appears that the target utilization TU and the under-load factor UF are believed to be most relevant. The following is a summary of how these parameters are used in Awdeh et al.

$$ERS = (MCR[vc\_no] + EIR[vc\_no])^* UF$$

EIR - elastic input rate (per unit weight) for all connections

UF - Under-load Factor = (actual rate available to ABR) / (actual ABR input rate)

ABR - available bit rate

ERS - Elastic Input Rate

MCR - Minimum Cell Rate

MCR[vc_no] - contracted MCR of this connection

EIR[vc_no] - running exponential weighted average of the actual elastic rate seen on this connection; uses α_{EIR}

TU - Target utilization. Affects the computation of the under-load factor UF. Determines how much rate ABR can target out of all the rate available to it; may be reduced it there is excessive queue build-up

The text at column 11 indicates that a connection can acquire more rate than its minimum cell rate (MCR) "by scaling every connection's actual rate by the under-load factor." At first, this text appears to be relevant. However, the mathematics seems quite different. The under-load factor UF is used to scale the sum of parameters relating to the minimum cell rate MCR in the elastic input rate EIR. This sum is significantly different from the techniques disclosed in Ramamurthy et al., especially the VBR, CBR and UBR techniques of Ramamurthy et al.

The Examiner cites column 19, lines 54-60 of Awdeh et al. as support for the proposition that the under-load factor UF is used to increase or reduce the assigned rate. However, this portion of the reference refers to the target utilization TU, not the under-load factor UF. The target utilization TU affects the computation of the under-load factor UF, but it is not the under-load factor UF itself.

In accordance with the foregoing, it is submitted that the claims patentably distinguish over Ramamurthy et al. and Awdeh et al., taken alone or in any proper combination.

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Accordingly, the obviousness rejection should be withdrawn.

In item 4 of the Office Action, the Examiner indicates that claims 2, 3, 6-14, 21, 25-27, 29, 31-33, 37-43, 50, 54-56, 58, 60-63, 66-72, 79, 83-85 and 87 contain allowable subject matter. These claims have been rewritten in independent form.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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